

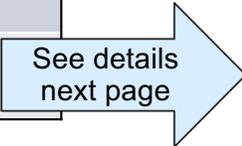
ATPESC Track 5: Numerical Algorithms & Software for Extreme-Scale Science

Monday, August 5

Time	Title of presentation	Lecturer
8:30 am	Adaptive Linear Solvers and Eigensolvers	Jack Dongarra, U. Tennessee-Knoxville

Tuesday, August 6

Time	Title of presentation	Lecturer
8:30 am	Communication-Avoiding Algorithms for Linear Algebra	Jim Demmel, UC Berkeley
9:30 am – 9:30 pm	Numerical Algorithms and Software for Extreme-Scale Science: Integrated Lectures and Hands-on Lessons	Track 5 Team



See details
next page

Thursday, August 8

Time	Title of presentation	Lecturer
8:30 am	The Convergence of Big Data and Large-scale Simulation	David Keyes, KAUST

Track 5: Numerical Algorithms & Software for Extreme-Scale Science

Time	Title of presentation	Lecturer
9:30 am	Overview of Numerical Algorithms & Software for Extreme-Scale Science	Lois Curfman McInnes, ANL
	... with hands-on lessons throughout the day for various topics (lead: Mark C. Miller, LLNL)	
10:30 am	Break	
11:00 am	Structured/Adaptive Meshing and Discretization	Ann Almgren and Don Willcox, LBNL
12:00 pm	Time Integration and Nonlinear Solvers (part 1)	Dan Reynolds, SMU
12:30 pm	Lunch	
1:30 pm	Time Integration and Nonlinear Solvers (part 2)	Dan Reynolds, SMU
2:00 pm	Krylov Solvers and Preconditioning	Jonathan Hu and Christian Glusa, SNL
3:00 pm	Break	
3:30 pm	Panel: Extreme-Scale Algorithms & Software	Track 5 Team
4:25 pm	Numerical Optimization	Alp Dener, ANL
5:10 pm	Putting It All Together	Ann Almgren, LBNL
5:30 pm	Dinner [+ Dinner talk]	Mark C. Miller, LLNL
6:30 pm	Hands-on Deep Dives ... 1-on-1 Discussions ... Prizes!	Track 5 Team

Tues, Aug 6, 2019

+ Hands-on lessons

Additional contributors to lectures and hands-on lessons:

Satish Balay (ANL), Aaron Fisher (LLNL)

Additional contributors to gallery of highlights:

Various HPC package developers

See also Track 7: Software Productivity (Aug 8)